

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-13. (Cancelled)

14. (Currently Amended) An image processing apparatus for subjecting color image data constituted of three primary colors to black ink addition, said apparatus comprising:

identifying means for identifying a pixel attribute of each pixel in said color image data and outputting a pixel attribute signal;

first address generating means for generating a first address based on a difference between a maximum value and a minimum value among three values indicating the three primary colors for each pixel in said color image data, and said minimum value;

a first lookup table in which ~~data is~~ first data and second data are read from the first address generated by the first address generating means;

~~processing means for generating a prospective first black ink signal based on the data read from the first lookup table;~~

linear interpolation means for outputting data used as a black ink signal and interpolating said first data and said second data read from the first lookup table;

second address generating means for generating a second address based on the three values indicating the three primary colors for each pixel in said color image data;

a second lookup table in which data used as a black ink signal is read from the second address generated by the second address generating means; and

black ink signal selecting means for selecting/outputting either one of ~~the data~~ said data used as a black ink signal read from the second lookup table ~~[[and]]~~ or said data used as a black ink signal outputted by said linear interpolation means ~~the prospective first black ink signal generated by said processing means as a black ink signal~~ in accordance with the image attribute signal of the pixel outputted from said identifying means.

15. (Currently Amended) An image processing apparatus for subjecting color image data constituted of three primary colors to black ink addition, said apparatus comprising:

identifying means for identifying a pixel attribute of each pixel in said color image data and outputting a pixel attribute signal;

first address generating means for generating a first address based on a difference between a maximum value and a minimum value among three values indicating the three primary colors for each pixel in said color image data, and said minimum value;

a first lookup table in which ~~data is~~ first data and second data are read from the first address generated by the first address generating means;

linear interpolation means for outputting data used as an undercolor signal and interpolating said first data and said second data read from the first lookup table;

processing means for generating a prospective first undercolor signal based on the data read from the first lookup table;

second address generating means for generating a second address based on the three values indicating the three primary colors for each pixel in said color image data;

a second lookup table in which data used as an undercolor signal is read from the second address generated by the second address generating means;

undercolor signal selecting means for selecting/outputting either one of the data used as an undercolor signal read from the second lookup table ~~[[and]]~~ or the data used as an undercolor signal outputted by said linear interpolation means ~~the prospective first undercolor signal generated by said processing means~~ as an undercolor signal in accordance with the image attribute signal of the pixel outputted from said identifying means; and

correcting means for correcting the three values indicating said three primary colors based on the undercolor signal selected/outputted from the undercolor signal selecting means.

16. (Cancelled)

17. (New) An image processing apparatus for subjecting color image data constituted of three primary colors to black ink addition, said apparatus comprising:

an identification section configured to identify a pixel attribute of each pixel in said color image data and output a pixel attribute signal;

a first address generating section configured to generate a first address based on a difference between a maximum value and a minimum value among three values indicating the three primary colors for each pixel in said color image data, and said minimum value;

a first lookup table in which first data and second data are read from the first address generated in the first address generating section;

a linear interpolation circuit configured to output data used as a black ink signal and interpolate said first data and said second data read from the first lookup table;

a second address generating section configured to generate a second address based on the three values indicating the three primary colors for each pixel in said color image data;

a second lookup table in which data used as a black ink signal is read from the second address generated in the second address generating section; and

a black ink signal selecting section configured to select/output either one of said data used as a black ink signal read from the second lookup table or said data used as a black ink signal outputted by said linear interpolation circuit in accordance with the image attribute signal of the pixel outputted from said identification section.

18. (New) An image processing apparatus for subjecting color image data constituted of three primary colors to black ink addition, said apparatus comprising:

an identification section configured to identify a pixel attribute of each pixel in said color image data and output a pixel attribute signal;

a first address generating section configured to generate a first address based on a difference between a maximum value and a minimum value among three values indicating the three primary colors for each pixel in said color image data, and said minimum value;

a first lookup table in which first data and second data are read from the first address generated in the first address generating section;

a linear interpolation circuit configured to output data used as an undercolor signal and interpolate said first data and said second data read from the first lookup table;

a processing section configured to generate a prospective first undercolor signal based on the data read from the first lookup table;

a second address generating section configured to generate a second address based on the three values indicating the three primary colors for each pixel in said color image data;

a second lookup table in which data used as an undercolor signal is read from the second address generated in the second address generating section;

an undercolor signal selecting section configured to select/output either one of the data used as an undercolor signal read from the second lookup table or the data used as an undercolor signal outputted by said linear interpolation circuit as an undercolor signal in accordance with the image attribute signal of the pixel outputted from said identification section; and

a correcting section configured to correct the three values indicating said three primary colors based on the undercolor signal selected/outputted from the undercolor signal selecting section.